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ABSTRACT

The presentation examines information on the issue of language-reading dependency and the roles that speech language pathologists (SLPs) can play to address both skills. The relationship of oral language and reading development is examined in terms of models (such as the Top-Down/Bottom-Up model) and hypotheses and research etiology. Studies on the topics are discussed and the belief that a strong interdependent relationship exists between oral language competence and literate language learning is explored. The paper suggests eight options for SLPs in working with children referred for not learning to read, including assisting in the selection of the reading program and modifying instructional language. Treatment approaches that stress linguistic awareness, fluency, narrative work, retrieval, written language and study skills, comprehension monitoring strategies, monitoring of self correction, and restructuring of syntactic and semantic complexity. A six-page bibliography concludes the report. (CL)

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LANGUAGE DISORDERS AND READING:
INTERDEPENDENCE NECESSITATES COMBINED INTERVENTION APPROACHES

1985 ASHA ANNUAL CONFERENCE
ANNEBELLE SCAVUZZO, M.S.

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An intimate relationship exists between language and reading acquisition and eventual competence. Reading and written language are referred to as the 'literate language' skills when contrasted with 'oral language' skills.

This lecture presents support from the literature and from clinical experience to make sharper and more palatable the interdependent relationship between oral language and literate language learning and competence. The discussion will include comments and suggestions about which roles are feasible for speech language pathologists when asked to treat a student with both oral and literate language disorders. You may refer to the skeletal outline on the reverse for a list of the topic areas and supportive comments and suggestions to be touched on in the lecture.

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INTRODUCTION:

Lead-in to discussion.

COURTING:

Chukovsky, Tommy Kennedy, purpose, arresting anxiety.

BUILDING THE RELATIONSHIP:

Language and reading: strikingly parallel models, components, disorder categories, symptom manifestation, and resultant consequences.
Supplanting reading and language as equivalent processes.
Suggesting **interdependence.**
Top-Down; Bottom-up; Stark components; Wiig-Semel components.
Research studies; longitudinal studies.
Single cause theories of reading disorder.
Verbal Deficit Theory (Vellutino)and supportive information.
Word Features (Vellutino and Shub)
Mattingly; Flow Charts; Learner's Reading Dimensions.
Ruddell on reading readiness; Multiple cause reading theory.
Lundsteen on differences between reading and language;
Restatement of **interdependence.**

ENGAGEMENT:

Possible roles the SPL can play.
1. Understanding what it takes to read (Carrow Woolfolk and Lynch).
2. Assisting in selection of reading program (Popp).
3. Discuss interdependence and spiraling nature of demand on language and reading through the school years with parents and teachers.
4. Suggestion sources for teachers.
5. Modification of instructional language (Berlin, Blank and Rose)
6. Areas to consider addressing if providing direct service delivery.

MARRIAGE:

Teaching reading during language therapy and teaching language during reading instruction.

Illustrative suggestions in critical areas to be addressed ancillary to the reading program of choice.

1. linguistic awareness
2. fluency
3. narrative
4. retrieval
5. modification of text
6. restructuring syntactic and semantic complexity
7. comprehension monitoring strategies
8. monitoring-self correction
9. written language

Note: For reprint of this paper please send 6.00 dollars and stamped self-addressed envelope to Annebelle Scavuzzo, M.S. Speech Language Pathologist, 877 Beacon Street, Boston, Massachusetts 02215.

AN INTERDEPENDENT ORAL-LITERATE LANGUAGE RELATIONSHIP SUGGESTS A COMBINED INTERVENTION APPROACH

INTRODUCTION

Long ago I began to practice a skill that I had learned in four seemingly short graduate school semesters. I can remember hoping the oral's committee would not ask me to recite a chronological litany of the theories devised to explain stuttering and the person most remembered for each theory. They did and I survived. That was more than ten years ago, a time when things were much simpler, retrospectively speaking. In those four short semesters, I had, in fact, grasped only little bits of knowledge. They were far from ripening, still in crysalis form.

In the years that have followed those simpler times, the complexities of speech and language pathologies have been no less consumptive than the national debt, insatiable in their lust for journal space, book space, lecture space and brain space. As the information swelled, so did the notion that to be viable, you and I needed to consume, store and use as much of that information as we could. In the trenches, we tried to practice it all, or teach it all and as a result our anxiety grew. I'm not sure about you, but two things are certain: I will not be left behind in this mega-information mania, and I absolutely must be in anxious company to feel safe.

What I intend to do in a mere 45,... now 43 minutes, is to feed the anxiety by presenting yet another body of information, and by insisting that you add yet another dimension to your already overburdened role as a clinical speech and language pathologist. The primary purpose of the discussion is to explore existing information and perhaps resolve some questions that surround the issue of language-reading dependency and the roles we can most comfortably play to address both skills.

COURTING

Now that we have been introduced, let me court you.

Chukovsky (1963) has written about language development and children. He has often illustrated the mammoth job a child accomplishes as s/he learns language by citing children's curious developmental inaccuracies and their use of language in the rhymes and poetry they devise. They are endearing, humorous and reflective of both the wonder and exasperation which typify language learning. One sixth grade boy's verse particularly

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exemplifies the complexities of language, and the resultant joy which can occur as oral language becomes literate.

> Love is like a pencil and paper.
> All pencils love all paper and vice versa.
> When the pencil point hits the paper,
> They kiss,
> And send messages to our brain,
> And we write code letters,
> That only pencils and paper can understand.
>
> Tommy Kennedy

The notion that an intimate, robust relationship exists between oral language acquisition and eventual competence, and the development and mastery of reading and writing is no longer a novel one. In fact, it is an accepted one. Both research studies and clinically learned insights give support and advance the notion of oral-literate language interdependency.

This paper/discussion elucidates that support, support which has been abstracted from the literature and constructed from the rich fertilization of clinical experience. The purpose is to make the notion of interdependence sharper and more palatable. It is important to make the notion palatable since it is upon the philosophy of the verbal deficit theory (Vellutino) that clinical speech language pathologists will begin to arrest their anxiety and begin to discuss which roles they believe they can feasibly accept when a student requires both reading and language intervention. To be more daring, were the anxiety thoroughly arrested, it is actually possible that speech language pathologists could view their intervention role as a powerful one.

What role a speech language pathologist chooses to play in the 'learning to read' - 'reading to learn' process depends upon how strongly s/he believes that a relationship exists, what s/he determines that relationship to be, how comfortably she can balance the similarities and differences that exist in their developmental courses, and how well s/he resolves the notion of interdependence when choosing and implementing intervention goals.

BUILDING THE RELATIONSHIP

Successful courting evokes a more serious relationship.

Hypotheses about the relationship between oral language and the development of literate language skills have been discussed for decades. Explicit indications of the relationship can be found in the literature. Language and reading models which describe component processes are strikingly parallel. Similarities can also be seen in their established categories of deficit/disorder, symptom manifestation, and resultant consequences. Moreover, single cause etiologic reading disorder theory has evolved into a highly charged, but supportive body of information. It spawned the 'verbal deficit theory' and led to the onslaught of sustentive opinions and research including a host of longitudinal studies, studies which looked at the continuous nature and re-emergent impact of language disorder on academic success.

Multiple cause theories of reading disorder suggested that language was not the sole etiologic factor of poor or disordered reading. This supplanted the strong suggestion that reading and language were perhaps equivalent, parallel processes. Reading was not **absolutely language dependent**; there were fundamental differences. Lundsteen (1977) wrote that "Printed material is not 'simply talk written down'."

By highlighting and, strengthening the concept of differences between oral and literate language, a more realistic, tenable idea emerges. Though success in the literate language skills is not totally dependent upon oral language competence, oral and literate language are **interdependent**. Oral language readies a child for reading by the very nature of its component parts; and though it may not be as visibly influential during the early reading stages, when breaking the code of print is the primary focus, its influence soars dramatically as students read to learn, problem solve from print, and code their ideas on paper to demonstrate their knowledge. The notion of interdependence strengthens the position that as speech and language pathologists, we can play a powerful role in the assessment and treatment of students with reading disorder.

Let me elucidate the evolution of the relationship between oral and literate language by offering some specific information from the literature. Similarity in the components of oral and written language can be seen in the **Top-Down/ Bottom-Up** Model proposed by Rummelhart, 1977 cited in Stark, 1981. This interactive model attempts to describe how we move bottom-up, from oral phonology/ decoding print to pragmatics of language/gestalt of print, or from top-down, moving from pragmatics/gestalt of text to phonology/decoding. Bottom up processes are elemental, whereas top-down processes integrate meaning with syntax and then with inference. Carrow-Woolfolk, and Lynch (1982 p. 311.) support this interactive model by stating that both speaking and reading use arbitrary codes; vocal and written codes represent sounds that have no intrinsic meanings. Further, they wrote that for

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speaking and reading. "Comprehension must ultimately be represented in the same mental symbolic set."

Stark (1981) described the components he felt to be necessary for successful reading skill acquisition. The components he cited include phonology which referred to word attack, decoding, and segmentation, semantics which referred to word meanings, syntax which referred to word order as partial determinant of reading, and pragmatics which referred to knowledge of the 'gestalt' of text (Stark, 1981).

Wiig and Semel (1980) described four components of reading, strikingly similar to oral language components: **Phonetic**, a conscious translation of letters into their auditory vocal equivalents (p. 33), **Syntactic**, the ability to follow phrase structure rules and complex word orders (p. 34), **Semantic**, the ability to reduce the surface structure of printed sentences into their meaning equivalents or deep structures (p. 34), and **Memory**, the ability to rehearse, organize, and serial recall, as well as the ability to recognize and spontaneously employ memory strategies (p. 346)

Lynn Snyder (1980, TLD) described reading as a "rather complex process in which the individual accesses and mobilizes cognitive and linguistic knowledge to construct meaning." She cited decoding, accessing lexical meaning, assigning syntactic relationships, and constructing comprehension processes as important components of the reading process, each in some way language-based.

Clinically, reading and language disorders are often similarly, albeit simplistically, categorized, despite what we know about heterogeneity of disorder. Reading disorders are described as disturbances in decoding or comprehension. Language disorders are often described as disorders of production or processing and both disciplines cite the presence of global deficits. Disorders have often been described in the literature by consequence and/or by etiology, and then categorized by both. Eventually, a topography occurs and category defines the disorder.

Many studies have been conducted to compare some aspect of language performance with reading performance, typically, subsequent reading failure. Carrow-Woolfolk and Lynch in their 1982 language disorders text (p. 321) summarized some of the most often cited research findings. It appears that at least for some children, poor readers when compared to good readers, have a history of oral language disorders including smaller speaking vocabularies, less appropriate use of grammar and syntax, poorer verbal fluency and organization of concepts, poorer word retrieval, slower vocalization response time, and poorer listening comprehension.

In their 1984 text Language Assessment and Intervention, Wiig and Semel (p. 626) cited selected language problems that may limit the interpretation and formulation of spoken and written English in the areas of syntax, semantics, and memory.

Longitudinal studies of language impaired students support the dependence of reading upon oral language competence. Generally, **longitudinal studies** (Aram, Ekelman and Nation, 1984; Aram and Nation, 1980; Edington, 1976; Garvy and Gordon, 1973; Griffiths, 1969; King, Jones and Lasky, 1982; Sheridan, and Peckham, 1975; Strominger and Bashir, 1977; Strominger, 1982; Hall and Tomlin, 1978; and Weiner, 1974) concluded that some children diagnosed with early speech and language disorder went on to have a wide variety of academic learning problems, many of which were literate language based, that is, disorders of reading, writing and spelling. Language related tasks which required internal organization of conceptual thinking were also implicated.

The longitudinal study most recently published by Aram, Ekelman, and Nation (JSHR, 1984), looked at the outcome for 20 students ten years after they had initially been studied as preschoolers. The data they presented indicated "that most but not all of the preschoolers restudied continued to present language deficits into adolescence and generally were at risk for academic and behavior difficulties." Moreover, a phonemic formulation task based on naming pictures from **Templin's Picture Sound Discrimination Test** when compared to a follow-up single word reading task from the **WRAT** "suggested a relationship between a child's ability to use sounds orally during the preschool years, and his/her ability to form grapheme correspondences in reading." Overall their data "demonstrate that children with language disorders generally do not present disorders confined only to oral language or present only during childhood. Rather, even when retarded children are eliminated, the majority continue to present broadly based language-learning problems with educational and social consequences for years to come." The tasks used for phonological comparisons are, agreeably, weak.

The cause of reading disorder has been as elusive and confusing as Don Quiote's quest. Theorists have theorized for the better part of this century about the etiology of reading disorder. Both single and multiple factor theories have been tendered.

As early as 1895, reading disorder was described by Hinshelwood, and Pringle Morton as "congenital word blindness." Orton, in 1925 and 1937, described his theory of incomplete cerebral dominance whereby control would alternate and the occurrence of errors, specifically reversals, was the result of shifting between the hemispheres. Herman, in '59, talked about perceptual deficit, theorizing that poor readers suffered from spatial confusion. Bender in '57 and Chritchley in '70 felt that reading disorder was due to a maturational lag or slowness in the

development of specific brain centers for reading while the rest of the brain was developing normally.

Smith and Carrigan in '59 suggested that reading disorder was due to the lack of balance between two chemicals that influence transmission of nerve impulses in the brain. Delacato in '63 attributed reading disorder to the immaturity in the brain below the cortical level. He prescribed creeping, and crawling [patterning], and forced consistency in hand and eye dominance. Frostig in '65 and '72 felt that visual spatial problems were at the base of reading disorders. His theory was to train visual perceptual skills and he went on to devise his own remedial program.

Baker in '72 and Corkin in '74 believed that reading disorder was caused by problems in sequencing which they described as the **Serial Deficit Theory.** Dykman and Caplan in '71 and '79 felt that both attention and concentration were essentially important if one was to be a good reader. Hence, deficits in these implicated poor readers. (Note: This chronology was summarized by Harris, 1982.)

Blank, in '78 concurred with Frostig that although the major difficulties of most retarded readers were in language, some groups of poor readers had problems in the visual-perceptual areas. Vellutino in '79 described the **Verbal Deficit Theory** which indicated that the cause of reading disorder was primarily due to "generalized language deficit". His theory was in direct contradiction to the visual perceptual theories. Further, he wrote, "it is our belief that deficiencies in reading emanate from deficiencies in one or more aspects of linguistic functioning that differentially affect the acquisition of the component skills necessary for achievement."

He stated, "it seems likely that success in learning to read depends primarily on intact language ability with the role of visual and motor systems ancillary at most."

To summarize, Vellutino's **VERBAL DEFICIT HYPOTHESIS** espouses that poor readers have inadequate development in one or more components of language.

More support for Vellutino's hypothesis can be garnered from the literature.

1. Vogel '71 and Sheldon '71- Found that children with severe reading disability were different from normal children in syntactic abilities to a high level of significance. (In Learner, 1972.)

2. Vogel 74- A study of a group of dyslexic 2nd graders found that they were significantly deficient in oral syntax when

compared to normals. (In Stark, 1981.)

3. Semel/Wiig 75- Studied a group of 34 learning disabled children in grade two though 7. They were found to have significant reductions in comprehension and expression of syntactic structures.

4. Burrows/Neyland 78- Their study (20 children) found a high correlation between receptive language competence, reading readiness and achievement.

The case for language as the dominant system in reading can be made more definitive by analysis of the subskills necessary to be a fluent reader. Vellutino with Shub (1981) stated that printed words contained five (5) categories of **featural information**, all seemingly language based. These included: graphic, orthographic, semantic, syntactic, and phonologic.

Words exist on each of these levels:

1. Graphic- Refers to visual patterns, or a unique array of letters (cat vs. mississippi) (bed vs. day).

2. Orthographic- Refers to the internal structural regularities of the words. Redundant letter/sound correspondences.

3. Semantic- Defines the concept symbolized by the word and the changes in concept with the different experiences of individual readers.

4. Syntactic- Indicates that a word is defined by its location in the sentence.

5. Phonologic- Suggests that words also exist by virtue of their particular sound characteristics.

Learner further described the word as important in reading by categorizing them into two main groups based on the language information each word carried. She insisted that **LEXICAL WORDS** carried the primary meaning. These included verbs, nouns, adjectives, and adverbs. The second group, **STRUCTURAL WORDS**, indicated word relationships. These included articles, prepositions, conjunctions, and auxiliary verbs. This categorization is similar to the delineation of word groups used by Bloom (1976) and others.

Mattingly (1972), another strong proponent of the verbal deficit theory, used the terms, 'primary linguistic activity' and 'linguistic awareness' to describe how language supports reading development. **PRIMARY LINGUISTIC ACTIVITY** referred to the tasks of speaking and listening. Reading relied heavily upon these

'primary linguistic activities', and this reliance he termed, **LINGUISTIC AWARENESS.** Mattingly believed that reading was a "secondary, rather special sort of activity which relied critically on the readers' awareness of these primary activities."

Mattingly emphasized that reading was language dependent, stating "Reading is not seen as a parallel activity in the visual mode to speech perception in the auditory mode; there are differences between the two activities that cannot be explained in the difference of modality. They can be explained only if we regard reading as a deliberately acquired language based skill dependent upon the speaker/hearer's awareness of certain aspects of primary linguistic awareness." Mattingly admitted that for adults, reading differed from language because the rates at which they processed printed words far exceeded the rate at which they processed the words they heard. ratio= 2000 to 400 (Carrow-Lynch, 1982, p. 311)

Harris (1982) conducted a review of the literature on the etiology of reading disorder and he combined all the existing studies to generate a list of the sub-groups of reading disorder or the 'syndromes' that appeared repeatedly in the literature. He cited the following: general language deficiency, difficulty with visual motor and perceptual problems, environment problems, difficulty with verbal fluency, blending, and segmentation.

Language and reading are further tied by the gradual, but observable increase in language based expectations inherent in school curricula. Jean Chall (1983) has made note of the increased demand on the language system in her description of reading stages. The relatively short period of time given to decoding/ phonology, in comparison to the time given to reading to learn, abstracting concepts from print, problem solving through print, and making judgments through reading, underscores the obvious roles which language plays in determining reading success and ultimately, success in learning.

Flow charts such as those constructed by Wiig and Semel (1984), and Emerick and Hatten (1980) graphically, and succinctly depict the continuous nature of language as important in later learning. Wiig and Semel's flow chart demonstrates the clear emphasis on basic skills in the traditional school curriculum. Emerick and Hatten's flow chart depicts a series of early developmental behaviors described as sub-language abilities, pre-expressive speech and language as the central symbolic system, on which rests a heavy group of language dependent behaviors. They list creative thinking, reading, writing-spelling, and problem solving, as language dependent.

Though Vellutino (1978) decided that most reading problems were associated with specific language disorders, it is not realistic

to believe that reading is absolutely language dependent.

Learner (1972), wrote that "defining reading as language disorder alone is, at best, limiting." She went on to say that such a notion "ignores other essential elements of reading." Learner felt that "In looking at reading as a global system, it is possible to see the critical, but not TOTAL role that language plays in the field of reading." As a result, she proposed a global model which described four dimensions that she felt were necessary for successful reading acquisition and achievement. Of the four (Readiness to Read, Skills and Abilities, Processes, and Teaching Reading), she saw language as playing a major role in two of the dimensions; however, all four dimensions were interdependent.

1. **READINESS TO READ:** This dimension focuses on what a child brings to the learning situation, and is considered a **Language Based Dimension.** What language skills a child brings to the learning situation at any point determines his readiness to learn to read or to acquire higher level reading skills. (Incl. Ruddell here *****)

2. **SKILLS AND ABILITIES:** This dimension focuses on competencies necessary to recognize symbols and gather meaning.

3. **PROCESSES:** This dimension focuses on how a child reads and is also considered a **Language Based Dimension.** The processes needed for reading are generally psycholinguistic. The child's linguistic system comes into play when there are reading miscues or errors.

4. **TEACHING READING:** This dimension focuses on the impact of the teaching process in reading, materials used, environment and etc.

****Ruddell's (1976) discussion of the oral prerequisites for reading further expands Learner's first dimension, **READINESS TO READ.** He saw five language behaviors as important to the success of the beginning reader including, recognizing and producing novel sentences, discriminating between grammatic and nongrammatic sentences, utilizing context and prosodic clues to discover the meaning of sentences having the same surface structure, comprehending sentences that possess different surface structures but have identical underlying meaning, and comprehending sentences with identical constituent structures but different deep structures.

Fletcher (1980) believed that only "some children with reading problems, particularly older children, have associated linguistic

disorders. He concluded that younger readers may have difficulty in phonological encoding, whereas, older readers' difficulties were likely the result of semantic and syntactic processing deficits.

Though multiple cause theories supplant the notion that reading is wholly dependent upon oral language competence, they do offer support for the concept of **interdependency.**

Harris (1982) pointed out that there were two types of multiple cause studies which attempted to categorize reading disorders into subgroups, clinical studies and statistical studies. Martha Denkla's multiple cause study (1972, '77) was clinically based and attempted to define each of the various subgroups of reading disorders with different etiologies. She reported that 70% of reading disordered children did not fall into any clear cut category, but the remaining 30% did fall into four categories: [1] Language deficit etiology, [2] Visual spatial problems etiology, [3] Dyscontrol Syndrome etiology (attentional disorder, described as sweet and sloppy), [4] Sequencing problems with slowness in naming etiology.

Lundsteen (1977) described the differences between learning oral language and learning to read. She pointed out that understanding the differences as well as the similarities or pre-requisite skills would better support the rationale for the selection of reading programs. In describing the differences, she lent support to the opinion that expectations for learning to read and reading language learning in general, particularly for language impaired children, should be manageable.

The differences she cited bear mention. She wrote that language is learned gradually but reading is often abruptly introduced. For children learning to read there seems to be greater anxiety about potential success and failure than there is about learning to talk. The blame for failure to read is often greater than the blame for failure to talk. Reward appeals of learning to talk also seem greater than for reading. Rewards for talking are more immediate and for reading they are often deferred until the code is safely broken and mastered. Printed language is less colloquial than oral language, and requires more organization of deep meaning than does oral language learning. Social interaction supports oral language learning much more consistently than it supports reading development. Reading miscues are corrected more harshly and more formally than are oral language miscues. Oral language miscues are more frequently seen as exploration or learning 'in process.' Thus, corrections are handled more naturally. Finally, it is true that children have a fairly good grasp of what speaking and reading are used for; but at the juncture of initial reading instruction, they rarely have a good idea about the reading terminology used. Use of the words **blend, sentence, beginning sound, or phrase** may not

be understood because the concepts of word, sound, and sentences are abstract.

Wardhaugh (1976) identified some of these same differences, further contrasting the deliberate nature of learning to read with the more natural, gradual process of learning to speak. He believed that children were required to learn to read within a 6 to 8 month period of time regardless of mental age, readiness, C.A., or any other factor. (Carrow-Lynch, 1982)

Despite the differences cited in learning to talk and learning to read, there is clear evidence to support the notion that a strong interdependent relationship exists between oral language competence and literate language learning through most of our preacademic, academic and adult years. Kamhi and Koenig (1985) point out that even when the oral language forms have been acquired, language impaired students remain at risk often because they are not able to reflect consciously on language forms. Their metalinguistic skills are weak. They have "difficulty accessing syntactic information" (Kamhi and Koenig, 1985), as well as "discrete linguistic elements" including sounds, syllables and words. (Kamhi, Lee, and Nelson, 1985) Given that important notion, what is to be done when language and reading are disordered?

ENGAGEMENT

As the relationship matures, commitment is suggested, and engagement is possible.

The roles that the speech language pathologist may take when a six year old child is referred with the complaint, "S/he is not learning to read." are open but not endless, and they are straight forward. S/he can refer the child to a reading specialist for reading evaluation and just see him for speech and language evaluation. If the speech language pathologist (SPL) has some course work and experience in both reading and language, s/he may see him for evaluation of both areas. Even if the SPL has experience in reading she may still refer the child to a reading specialist, but add some additional measures to her battery that probe metalinguistic awareness abilities, narrative, retrieval and early reading skills. What roles are possible when this same child is referred to the SPL for therapy? You may treat the language, or you may treat the language and support the reading, or you may treat the language and the reading in a combined approach.

At this point in the discussion I would hope that you see the obvious impact which language has on learning to read and write and that you could consider the following suggestions as viable.

1. By fully understanding the progression of what it takes to read, one can better understand the difficult nature of the task and thus, talk intelligently with reading specialists about the interdependent relationship between language and reading. In their text, Elizabeth Carrow-Woolfolk and Joan Lynch (1982, p. 316 -318) cite Woolfolk-Carrow's (1980) list of the tasks that a child must accomplish in learning to read. The descriptive step by step list does underscore the complexity of the reading process and the many points at which confusion can occur as a child begins to read.

2. It is important to assist in the selection of the appropriate reading program based on the student's language deficits. In a paper presented at the 1978 New England Branch of the Orton Society, Helen Popp (1978) discussed an approach for selecting a first instructional reading program for high risk children. She described the instructional sequences involved in four approaches to teaching reading. These included instructional components and subskills for phonic, linguistic, sight word, and language experience approaches. Helen Popp felt that it was important to carefully select initial reading programs for high risk children and that these selections should occur after careful consideration of theoretical information available, programs available, a child's current level of subskills, and the tasks involved in the reading process. She felt that tailoring instructional programs for these children should and could be done.

3. The SPL will need to discuss the interdependent relationship between language and reading with parents and the classroom teacher so that both better understand which behaviors the child exhibits, how these behaviors impact on school success, and which behaviors in each discipline seem to be linked. The discussion should be supplemented with clear examples evidenced in the child's language reading assessment profile. In his concluding remarks of his 1975 **ASHA Magazine** article Joel Stark supported this role by writing,

> In conclusion, we believe that there is a significant amount of evidence to indicate that speech and language pathologists can make a very important contribution to the prevention and treatment of reading problems. Assisting parents, teachers, and other specialists by providing information about the nature of language acquisition and training children in linguistic processing may produce highly desirable results. At least, speech and hearing clinicians may be able to modify currently used

teaching techniques and materials so that teachers can more effectively understand the role that language plays in reading.

4. Additionally, it is important to talk with teachers about the progressively increasing demands made on the child's language system, demands which are inherent in day to day classroom tasks, and which characterize the increasing volume and complexity of text to be consumed as part of the school curriculum, (Scavuzzo and Kleinman, 1981). Moreover, the teacher should be given ample time with the speech and language specialist to learn how s/he can both encourage language within the daily instructional curriculum and how she can modify her classroom instructional language to meet individual differences in oral language competence. It is also possible that the teacher could accommodate individual reading differences seen in language impaired children by actually adapting text.

5. Martin Fujiki and Bonnie Brinton (1984) offer a number of basic suggestions that a teacher could use within the daily instructional curriculum to enhance language not only for language impaired children but also for those who are not. Their suggestions can be found in their article, **Supplementing Language Therapy: Working with the Classroom Teacher**, LSHSS, 15, 1984, p. 98-109.

6. Karen Shipley and Stephen C. McFarlane. in their article entitled **Facilitating Reading Development with Speech- and Language-Impaired Children**, 1981, LSHSS, 12, p. 100-106, Karen Shipley and Stephen C. McFarlane, make a number of suggestions which might be used to stimulate reading during the speech and language therapy session and with teachers or parents. They offer specific descriptions to teach basic language concepts, to teach language redundancy, to facilitate memory functions, to facilitate left right progression and letter identification, and to facilitate auditory and phonetic segmentation, all felt to be important in reading development. They also underscore the need to facilitate motivation to read, attention, risk taking and speed.

7. To address modification of classroom language, Laura Berlin, Marion Blank, and Susan Rose discussed the complexity of the dialogue which exists in the typical classroom. In their article, **The Language of Instruction: The Hidden Complexities**, TLD, 1981, 1, 47-59. They cited four levels of abstraction to describe the complexity of preschool discourse expectations for both questions and statements. Were a teacher aware of the actual level of student task awareness, and the ability necessary to match, selectively analyze, reorder, and reason about perception,

she might be better able to control the level of her instructional teaching with language reading impaired children within the classroom.

8. If a direct service delivery model is chosen to address language and reading the SPL could consider implementing a language program which strengthens phonology, strengthens awareness of word and sentence components, introduces /wh/ question work leading to the main components of children's early basal reader narratives, rebuilds and restructures organization of oral language concepts and vocabulary, and which models and teaches monitoring and self correction strategies

MARRIAGE

Marriage implies a committed, combined, and interdependent effort to cushion individual weaknesses, and herald individual strengths over a lifetime.

In a therapeutic situation, a combined approach to treatment implies teaching reading as an integral part of language therapy and teaching language as an integral part of reading instruction. It is possible to see the two as inseparable very early on. For example, when working with young children, stories told in therapy about pictures or objects should be written down in bright colors, and in large print to be re-read at home. Here, print immediately becomes linked with talking.

When working with children who exhibit both reading and language disorder, I would address both within the therapy setting. This, however, does not replace classroom reading instruction nor time with the resource specialist. Goals established for younger children are different than those for older children. Goals change when a student is able to decode sufficiently to read and learn through reading. The areas I typically address are: linguistic awareness, fluency, narrative, retrieval, organization, modification of text, syntactic and semantic complexity, reading comprehension strategies, and written language. These areas are not exhaustive, nor are the examples and ideas which follow. They are included to illustrate how vital a role you play when teaching reading during language therapy.

With children just learning to read, I spend time teaching linguistic awareness activities including those described by Rosner, Elkonin, Gallistel Ellis, Rubin and others. This involves, for example, talking about sounds, words, and sentences; counting sounds, syllables and letters; talking about long vs. short words; introducing segmentation tasks; and

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becoming aware of syllable types. These tasks could be easily included as part of the language therapy plan simply by using words, and sentence structures specific to a student's particular language weakness. For example, if a student had problems serializing days of the week, and months of the year, those words could be used for linguistic awareness concurrent with language therapy. Choosing terms from basal readers or texts used as part of the curriculum builds in some learning practice as a by-product.

Fluency is a second crucial aspect of reading. The book, **A Giraffe and A Half** by Shel Silverstein is an excellent example of using redundancy to build reading fluency. Fluency exercises can be constructed as soon as a child has developed even a small core reading vocabulary. Mildred McGinnis' **Association Method** was adapted for aphasic children by Sister Mary Kirby at Randolph for the Deaf. In one of the earlier units in Sister Kirby's program, she used a series of carrier phrases followed by the student's core reading vocabulary. This helped to develop a sense of fluency using redundancy. For older students I extract the most difficult sentences, syntactically or semantically, from their texts and then pull the most difficult word from each sentence to the top of the page. I add one word or phrase at a time, repeating the sentence after each addition, until the sentence is complete. Each phrase or word must contain a specific kernal of meaning. This exercise gradually increases the student's ability to read the sentence fluently. If a group of these have been done as a preview exercise, the student can typically read a passage, section, or chapter of text more smoothly and with better cumulative comprehension.

In addition to linguistic awareness, and fluency, I also feel that the components of early narratives should be taught directly. This includes teaching /wh/ question words, and the word class which applies to each. These questions and question words should be directly applied to the information in basal reader stories. These /wh/ questions can be used even with very young children after stories have been told to them from picture books at home as as part of therapy. Parents, teachers and clinicians should ask the pertinent, who, what, what doing, where, when, how, why, what kind, what color, and how many (McGinnis), and then briefly jot down the answers on a form (devised by teacher or therapist), so that the information can be recapitulated at a later date when the story is re-read. Growth in sophistication can be charted and previous answers can be talked about.

Additional work on narrative would involve choosing books which reflect the child's current level of narrative understanding. Carol Westby's chapter on narrative in the Wallach and Butler text (1983) describes six basic types of narrative. For older students, the types could be discussed and examples of each could

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be read. Students could then either try to recognize which type they might be reading, or try to write one similar to the one they are reading. Key word, semantic trees, or other brief starter outlines should ensue first. Each key idea can be expanded into a phrase and recombined with another to make sentences. Eventually, ideas become the bases for individual paragraphs.

Schoolage students should be asked to note the word class, /wh/ question category and fashion an appropriate definition using starter phrases for the vocabulary in their text books that they do not know, (Scavuzzo, 1985). These words could then be grouped by asking the student to decipher any possible similar feature, whether it be linguistic, semantic, or phonologic. Differences between words could also be highlighted by using phrase charts.

Similarly, syntactic structures from the texts, which the student finds difficult should be rewritten in a more straight forward form but, the meaning should be maintained. This should occur only after the structure has been talked about and the phrases and clauses have been pulled apart. Another way to help with syntax confusion is to extract particularly difficult sentences from the text and break them into kernal sentences and then, before beginning the passage, work with a sentence combining task should be done with the student.

Retrieval and its impact on reading is also a critical issue to address. This involves assisting a student to organize new ways of recalling information. Visual mnemonics exemplified by Nancy Stevenson, in her reading program (1974), chunking (Reading Milestones, 1984), sight word stories, sand tracing, semantic organization strategies (Pehrsson and Robinson, 1985), as well as enriching language, and providing cues are some basic suggestions.

Modification and adaptation of text is a method which involves reducing the vocabulary, syntax and sentence length to make the printed content more manageable. Semel and Wiig (1983), and Parker (1972) describe elaborate to simple text adaptation strategies for older language reading impaired students. Parker has advocated modification of text by determining the concepts to be learned, by determining the vocabulary and idioms to be taught or reduced in difficulty), and by reducing the language complexity in terms of sentence length or syntax. Wiig and Semel's modification and adaptation paradigm lay out specific ares of semantic and syntactic load to be reduced.

Palincsar and Brown (1980's) have written about the use of comprehension monitoring strategies. This involves building a student's internal control of text through a series of summaries termed, "reciprocal paraphrasing" which recall and state topic. and several important points. It also involves questioning

wherein the student rigorously generates questions about sentences and eventually for larger sections of text These questions can be either explicitly or implicitly motivated. Clarification involves noting incongruities in the text or title, and prediction involves suggesting what the passage might be about based on the title or what might occur next in the text based what has already been read. These, when used, over an intensive period of time, have proven to dramatically increase student awareness of salience within printed text and the inherent practice involved via oral discussion does foster retention.

Absolutely, written language and study skills should also be addressed. These become ways to help a student organize information which s/he is reading and should be implemented for every student seen in therapy, either by a teacher, the therapist or a student within the classroom who has already developed study skills. Key word, sentence summary, semantic diagrams, traditional enumeration and question generation techniques should be tried on both cards and lined paper to which method works best for which student and for which subjects.

Finally, the reading program chosen to teach reading will need to done in conjunction with a reading specialist and goals, objectives, words, characters, approaches, and materials should be well coordinated, particularly if two specialists will be working with the same student.

That a relationship exists between oral and literate language is obvious. What that relationship entails in terms of commitment can be a different as the educational perspectives, beliefs, and experience of each speech language professional. The ground has been broken and tilled by a host of speech language pathologists who see their comitment to language impaired students extending beyond the 'seven year itch', through the elementary and adolescent years. Each who works with these students on a regular basis has sensed that his/her role may not be widening, but rather changing to address language in its literate forms. To restate the philosophy, a combined intervention approach should teach reading during language therapy and teach language during reading instruction.

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